MOBILE BASED FOR INVENTORY SYSTEM (MBIS)

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Bachelor of Software Engineering with Honors

UNIVERSITI MALAYSIA PAHANG

SUPERVISOR'S DECLARATION

I hereby declare that I have checked this thesis and in my opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Bachelor of Software Engineering with Honors.

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at University Malaysia Pahang or any other institutions.

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ABSTRAK

Tajuk projek ini adalah Aplikasi Mobil untuk Sistem Inventori (MBIS). Sistem ini memainkan peranan penting untuk membantu penjual terutama stokis untuk menguruskan inventori mereka, masuk dan keluar produk dan menjejak stok produk yang tersedia. Sebelum ini, kebanyakan penjual merekodkan inventori mereka hanya dalam buku log sahaja. Dengan cara ini, kebarangkalian kehilangan data mungkin berlaku dan terus perkara ini dapat mempengaruhi inventori mereka. Oleh itu, objektif untuk membangunkan sistem ini adalah untuk menganalisis masalah sistem semasa dengan menghasilkan Aplikasi Mobil untuk Sistem Inventri, untuk merekabentuk dan membangunkan sistem prototaip kepada Aplikasi Mobil untuk Sistem Inventori menggunakan Google Excel sebagai pengurusan pangkalan data sistem dan untuk menguji aliran prototaip Aplikasi Mobil untuk Sistem Inventori. MBIS dicipta menggunakan Android Studio dengan Bahasa program iaitu Java. Di samping itu, pengkomputeran awan akan digunakan untuk menyokong pengurusan pangkalan data sistem dan membuat sistem lebih mesra. Metodologi yang digunakan dalam membangunkan sistem ini ialah Metodologi Agile yang terdiri daripada lima fasa iaitu merancang, kehendak, reka bentuk, membangukan dan ujian yang membolehkan sistem dibangunkan dengan cepat dan mudah melaksanakan perubahan walaupun semasa pembangunan sistem. Sebelum menyampaikan sistem, ujian penuh ke atas sistem akan dilakukan untuk memastikan sistem memenuhi keperluan pengguna dan objektif.

ABSTRACT

The title of this project is Mobile Based for Inventory System (MBIS). This system plays an important role to help seller especially stockist to manage their inventory, inbound and outbound of the product and track the availability of product. Before this, most of the seller recorded their inventory just in log book only. With this way, the probability loses of data may happen and directly this matter can effected their inventory. So, the objectives of developing this system is to analyse the problem of current system by produce Mobile Based for Inventory System, to design and develop prototype system for Mobile Based for Inventory System using Google Excel as a system database management and to test the prototype of Mobile Based for Inventory System. MBIS is developed by using Android Studio with Java language. In addition, cloud computing will be used to support a system database management and make a system more friendly. The methodology used in developing this system is Agile Methodology that consist of five phases which are planning, requirement, design, building and testing that allows the system to be developed quickly and easily implement the changes even during the development of the system. Before deliver the system, full testing toward the system will be performed to ensure the system has meet the user requirements and objectives.

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LIST OF ABBREVIATIONS

MBIS	Mobile Based for Inventory System
SRS	Software Requirement Specifications
SDD	Software Design Document
iOS	iPhone OS
PC	Personal Computer
CSV	Comma Separated Values
SDLC	System Development Life Cycle
GUI	Graphical User Interface

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF STUDY

In the era of technology, business is a competitive and creative activity that continuously contributes to the shaping of society and plays a major role. Business are not only important because provide goods services for consumers, but it also the ways of the companies conducting the business. Before this, most of the companies or sellers used manual book to manage or record the sales of their business. Therefore, Mobile Based for Inventory System is new approach of the system application that will be developed to help the stockist to manage their business more efficient and effective in the systematic ways. For examples can track the costs of the inventory throughout the manufacture and sales process, tell the seller when to add stock, allow to track profits and used to forecast inventory levels.

As we known, inventory management system are central on how companies or seller track and control the inventories. It is the process of overseeing and controlling the flow of inventory units a business uses in the manufacture of good for sale or distribution. The different types of the inventory have different function in terms of the input, process, output and the storage. In this project, the focus will be on implementing and developing the inventory system by using Google Excel as system database management where it is one of the medium that provided high-level services where separates a physical computing devices into one or more virtual devices that can make it easier to used and manage to perform computing task everywhere and anytime. To access the system database, the user need to active the internet connection because it is secure and private

network which is the user need to have the active google account to access the Google Excel to prevent an unauthorized access. The proposed system can help seller to manage stock, store and retrieved data with efficient inventory control and high accuracy.

So, Mobile Based for Inventory System (MBIS) developed to help the stockist to manage and handling their business properly using Google Excel to save, retrieve, update, view the availability stock, manage sale, manage purchase and manage customer and supplier.

1.2 PROBLEM STATEMENT

Today there are a lot of inventory systems that have been developed in order to help seller to manage their inventory or business. Mostly, of the existing system that seller used are web-based system which mean they only can access to the system by using laptop or computer only. Thus, it is not efficient to do the work at outside because they need to bring the laptop around. But, each system have their advantages and disadvantages itself to make the system working properly. So in this project, three existing application will be choose to study on how it working and the process. After studies this three systems, then will be analyse the advantages and disadvantages of the system that can be apply into the Mobile Based for Inventory System.

Besides that, several stores used manual forms of a log book to keep record of product available in stock and transaction made. In this situation, the seller facing some difficulty while handling inbound and outbound of the products and sometimes the stock is out of control and difficult to trace. Moreover, this method also has a high risk of data loss due to difficulty of making backup because all the data are in the form of hard copy. In order to solve this problem, Mobile Based for Inventory System will be develop to enhance buying and selling process with the customers and save more time in order to identify items and product existing because any unpredictable mistakes can increase cost losses to the companies.

Lastly, the process of inventory is difficult to track inbound, outbound and availability of the product using manual log book and tendency to gain error or mistake during calculation. It is difficult to the seller or user to trace and aware the availability of stock. In addition, the computerized system is more efficient and accurate in calculation such as calculate price of sale, purchase, profit, and loss and sometimes need to apply several formula to calculate all of that compare to human energy that have a lot of difficulties in calculate price.

1.3 OBJECTIVE

The purpose in developing this Mobile Based for Inventory System (MBIS) is based on several objectives. Main objectives of this project are :

i. To analyse the problem of current system by produce Mobile Based for Inventory System.
ii. To design and develop prototype system for Mobile Based for Inventory System using Google Excel as a system database management.
iii. To test the prototype of Mobile Based for Inventory System.

1.4 SCOPE

In this section, scopes of Mobile Based for Inventory System (MBIS) are defined. There are several elements that involves which is user, system and database. These elements are important to make sure that the scope of the system not override the boundaries of the system. Only one person that involve in Mobile Based for Inventory System (MBIS) which is user named stockist. This system is mobile application that is easier to the user to access. In addition, this system will be developed using Android Studio for develop Java language. Then, Google Excel will be used to support a system database management and make a system more friendly to seller to check stock and view the history by getting the requirement from the client.

REFERENCES

[1] Green, J. (2018). 4.6 5,970, 3–5. "My Business". Retrieved from :https://play.google.com/store/apps/details?id=com.segb_d3v3l0p.minegocio

[2] Shana, A. (2018). 4.3 87, 3–5."Smart Inventory management". Retrieved from : https://play.google.com/store/apps/details?id=com.smartapps.smartinventory

[3] Toth, J. (2018). 4.4 185, 3–5."Smart Inventory System". Retrieved from : https://play.google.com/store/apps/details?id=com.nonzeroapps.android.smartinventory

[4] Hneif, M., & Ow, S. H. (2009). Review of Agile Methodologies in Software Development 1. *International Journal of Research and Reviews in Applied Sciences*, *1*(1), 2076–2734. https://doi.org/ISSN: 2076-734X, EISSN: 2076-7366. Retrieved from : http://www.arpapress.com/Volumes/Vol1/IJRRAS_1_01.pdf

[5] Sharma, S., Sarkar, D., & Gupta, D. (2012). Agile Processes and Methodologies : A Conceptual Study. *International Journal on Computer Science and Engineering*, *4*(5), 892–899. Retrieved from : https://pdfs.semanticscholar.org/5af8/fc8a2be4a16da4ffbe11d5699f71a37f6969.pdf

[6] Bowerman, E. (2015). What is Agile Development for Mobile Apps?, 1–7. Retrieved from : http://sourcebits.com/app-development-design-blog/what-is-agile-development-for-mobile-apps/

[7] KUMAR, B. R. (2018, MARCH 13). *Coding is Love*. Retrieved from : https://codingislove.com/google-sheets-database/

[8] Nilanchala. (2015, JUN 27). *STACK TIPS*. Retrieved from https://stacktips.com/tutorials/android/download-and-display-image-in-android-gridview